Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start		Rating **	Α	Issue No.		3	
LM End		Issue Type +	Ma	Location *			
Earthen Levee			GPS La	atitud	le/Longitude		
Category				Start		End	
Item	Operations & Maintenance				٥		0
пеш	Manuals o					0	
DWR ID DWR_RD2098_01_f _ 2014_3							
		Comn	nent Cod	le			
		Inspecto	or Comm	nent			
RD 2098 h	as on file	O+M Manual.					

No Photos

LM Start		Rating **	Α	Issue No.		4	
LM End		Issue Type +	Ma	Location *			
Category	Earthen L	.evee		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item		cy Supplies &			0		0
пеш	Equipmer	nt			0		0
DWR ID	DWR_RD2	098_01_f _ 201	4_4				
		Comn	nent Cod	de			
		Inspecto	or Comm	nent			
RD 2098 h	nas emerge	ency supplies	in storac	ne along wit	th ec	uipment.	

No Photos

		5					_
LM Start		Rating **	Α	Issue No.		5	
LM End		Issue Type +	Ma	Location *			
Category	Earthen L	evee		GPS La	atitud	de/Longitude	
Category				Start		End	
Item	Flood Pre	paredness &		0		0	
item					0		0
DWR ID	DWR_RD2	098_01_f _ 201	4_5				
		Comn	nent Cod	le			
							_
		Inspect	or Comm	ent			
RD 2098 has their team well prepared for a flood fight.							

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	0.07	Rating **	Α	Issue No.	22			
LM End	0.67	Issue Type +	Ma	Location *		WS		
Catagonia Earthen Levee			GPS La	atitud	e/Longitude			
Calegory	Category			Start		End		
Item	Vegetation			Vegetation		38.3281	25 °	38.319367
пеш				-121.694047 °		-121.694040		
DWR ID DWR_RD2098_01_f _ 2018_22								
Comment Code								

V1 : Control annual grass and weeds on the levee slopes and easements.

Inspector Comment

The LMA is doing a good job of maintaining annual vegetation.

LM Start	0.07	Rating **	Α	Issue No.	22 (cont)
LM End	0.67	Issue Type +	Ma	Location *	WS



View looking downstream at vegetation on the waterside slope (Spring 2019).

Photo 2 of 2: SP_2019_RD2098_244_22_20190311_00013.jpg



View of vegetation on the waterside slope. The vegetation is spread enough that can still see the levee but is thick enough that it should be removed (October 2018).

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	0.07	Rating **	Α	Issue No.		16	
LM End	1.01	Issue Type +	Ma	Location *		LS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Vegetation			38.3281	25 °	38.314483 °	
пеш			-121.694047 °		-121.694012 °		
DWR ID DWR_RD2098_01_f _ 2018_16							
		Comn	nent Cod	le			
V1 : Contro easements		rass and wee	ds on th	e levee slo	pes a	and	
		Inspecto	or Comm	nent			
The LMA is doing a good job of maintaining annual vegetation.							

4
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THE RESERVE OF THE PERSON NAMED IN COLUMN 2 IS NOT THE OWNER.
AND THE PROPERTY OF THE PARTY O
68 28 2619
99 26 2019
99-26-2019

Photo 1 of 2: SP_2019_RD2098_244_16_20190326_00060.jpg

View looking downstream at vegetation on the landside slope (Spring 2019).

 LM Start
 0.07
 Rating **
 A
 Issue No.
 16 (cont)

 LM End
 1.01
 Issue Type +
 Ma
 Location *
 LS

Photo 2 of 2 : SP_2019_RD2098_244_16_20190311_00005.jpg



View looking upstream at vegetation on the landside slope. Vegetation is spaced enough that still can partially see the levee slope but still should be removed (October 2018).

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	0.57	Rating **	М	Issue No.		13	
LM End	1.06	Issue Type +	Ma	Location *	WS		
Category Earthen Levee			GPS La	atitud	le/Longitude		
Calegory				Start		End	
Item	Erosion /	Bank Caving		38.3207	'55 °	38.313700 °	
пеш				-121.6939	82 °	-121.693639 °	
DWR ID DWR_RD2098_01_s _ 2017_13							
		Comn	nent Cod	de			
E2 : Sched	dule repair	of erosion site	e prior to	the next in	spe	ction.	
		Inspecto	or Comm	nent			
Monitor an	d repair er	osion on wate	erside.				



View of erosion on waterside.

LM Start	0.87	Rating **	М	Issue No.		23		
LM End	0.97	Issue Type +	Ma	Location *	WS			
Catagory	Earthen L	evee		GPS La	S Latitude/Longitude			
Category				Start		End		
Item	Vegetatio	n		38.3164	80°	38.315005 °		
пеш				-121.6940	15 °	-121.693995 °		
DWR ID	DWR_RD2	098_01_f _ 201	8_23					
		Comn	nent Cod	le				
V1 : Control annual grass and weeds on the levee slopes and easements.								
	Inspector Comment							

No Photos

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	0.96	Rating **	A/W	Issue No.		19	
LM End	0.96	Issue Type +	Ma	Location *			
Category	Supplemental				GPS Latitude/Longitude		
Calegory	egory					End	
Item	2017 Stor	m Damage		38.3152	00°	38.315100°	
пеш				-121.6941	00°	-121.694100 °	
DWR ID	D DWR_RD2098_01_s _ 2018_19						
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of cracking and sloughing of the

lower landside levee slope.

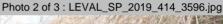
Site ID No:414

Site Designation:LMA-241 Repair Type: Erosion Rating: Area of Concern Field Date:7/24/2017

Notes: Landside sloughing about 2' deep and extends to toe ditch.

LM Start	0.96	Rating **	A/W	Issue No.	19 (cont)
LM End	0.96	Issue Type +	Ma	Location *	







CR : Crown

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	0.96	Rating **	A/W	Issue No.		19 (cont)		
LM End	0.96	Issue Type +	Ма	Location *				
Category	Suppleme	upplemental			GPS Latitude/Longitude			
Calegory						End		
Item	2017 Stor	m Damage		38.31520	00°	38.315100°		
пеш				-121.69410	00°	-121.694100 °		
DWR ID	R ID DWR_RD2098_01_s _ 2018_19							
Comment Code								

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of cracking and sloughing of the

lower landside levee slope.

Site ID No:414

Site Designation:LMA-241 Repair Type: Erosion Rating: Area of Concern Field Date:7/24/2017

Notes: Landside sloughing about 2' deep and extends to toe ditch.



LM Start	1.06	Rating **	С	Issue No.		24
LM End	1.64	Issue Type +	Ма	Location *		LS
Category	Earthen Levee			GPS Latitude/Longitude		
Category				Start		End
Item	Vegetatio	n		38.31370)2 °	38.305367°
пеш				-121.6936	57°	-121.693648 °
DWR ID	DWR_RD2	_RD2098_01_f _ 2018_24				
		Comm	nent Cod	le		

V1: Control annual grass and weeds on the levee slopes and easements.

Inspector Comment

No Photos

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	1.55	Rating **	М	Issue No.	14		
LM End	1.55	Issue Type +	Ма	Location *	LS		
Category	evee	GPS Latitude/Longitude					
Calegory				Start End			
Item	Trim / Thi	n Trees		38.3066	28°	38.306628	
пеш				-121.6936	32 °	-121.693632	
DWR ID	DWR_RD2098_01_f _ 2018_14						
Comment Code							

T1: Trim trees to at least five feet above ground level.

Inspector Comment

Trim and thin trees to allow inspection and access to landside slope and toe. Also, remove fallen tree on landside slope.



View of fallen tree and other trees on waterside slope.

LM Start	1.76	Rating **	M	Issue No.		18			
LM End	1.76	Issue Type +	Ma	Location *		WS			
Category	Category Earthen Levee				GPS Latitude/Longitude				
Calegory			Start		End				
Item	Erosion / Bank Caving			38.3036	11°	38.303611 °			
пеш				-121.6936	07°	-121.693607 °			
DWR ID DWR_RD2098_01_s _ 2018_18									
Comment Code									

E1: Note and monitor erosion site.

Inspector Comment

Monitor and repair erosion.

Photo 1 of 1: SP_2019_RD2098_244_18_20190311_00006.jpg



View of erosion.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	1.82	Rating **	М	Issue No.		41		
LM End	1.82	Issue Type +	Ма	Location *				
Category	ental	GPS Latitude/Longitude						
Calegory			Start		End			
Item	DWR UC	IP LMA Respo	nsibility	38.3027	70°	38.302770 °		
пеш				-121.69364	10°	-121.693640 °		
DWR ID	20965							
	Comment Code							

Inspector Comment

FS_ID:32197 DS_ID:20965 EP_NO: 10168

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 12/22/2016 Met with Mike Hadesty, LMA

Superintendent, and Brian Bush, LMA General Manager, to go over the list of pipes in RD2098. Per LMA records, this pipe has a different

owner. (O. Magana - DWR UCIP)

03/18/2014 Erosion under pipe at WS toe. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 10-inch steel drainage pipe through the levee, 2.8 feet below the crown. Pump in pump house off the landside (LS). (This pipe was retained under Automatic Board Order (ABO) issued as Permit No. 10168, 1974 - Moresco Brothers). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 1.80)].

FS Date: 3/18/2014

LM Start	1.82	Rating **	М	Issue No.	41 (cont)
LM End	1.82	Issue Type +	Ma	Location *	



Pipe on WS slope.

Photo 2 of 3: UCIP_SP_2019_32197_58661.jpg



Pumphouse at lowpoint off LS toe.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	1.82	Rating **	М	Issue No.		41 (cont)
LM End	1.82	Issue Type +	Ма	Location *		
Category	Suppleme	GPS Latitude/Longitude				
Calegory	Category					End
Item	DWR UC	DWR UCIP LMA Responsibility			o°	38.302770 °
пеш				-121.69364	o°	-121.693640 °
DWR ID	20965					

Inspector Comment

Comment Code

FS_ID:32197 DS_ID:20965 EP_NO: 10168

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 12/22/2016 Met with Mike Hadesty, LMA

Superintendent, and Brian Bush, LMA General Manager, to go over the list of pipes in RD2098. Per LMA records, this pipe has a different

owner. (O. Magana - DWR UCIP)

03/18/2014 Erosion under pipe at WS toe. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 10-inch steel drainage pipe through the levee, 2.8 feet below the crown. Pump in pump house off the landside (LS). (This pipe was retained under Automatic Board Order (ABO) issued as Permit No. 10168, 1974 - Moresco Brothers). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 1.80)].

FS Date: 3/18/2014



Erosion under pipe at WS toe.

LM Start	2.20	Rating **	A/W	Issue No.	15		
LM End	2.24	Issue Type +	Ma	Location *	WS		
Category	Suppleme	ental	GPS Latitude/Longitude				
Calegory				Start		End	
Item	2017 USA	38.29723	2 °	38.296678	0		
item	DRAFT					-121.693223	0
DWR ID	DWR_RD2	098_01_f _ 201	8_15				

Inspector Comment

Comment Code

2017 Site ID: YOL 2.2 R Status: Eroding New

2017 Field Notes: POTENTIALLY UNDER REPAIR; full landslide from levee crown down, revetment failure, additional slumping ds and slump cracks observed.

Site History:

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.21	Rating **	A/W	Issue No.	21		
LM End	2.22	Issue Type +	Ma	Location *			
Category	ental	GPS Latitude/Longitude					
Calegory			Start		End		
Item	2017 Stor	m Damage		38.29710	00°	38.297000°	
пеш				-121.69330	00°	-121.693300 °	
DWR ID	D DWR_RD2098_01_s _ 2018_21						
	Comment Code						

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of erosion, cracking, and sloughing of

the waterside levee slope.

Site ID No:416

Site Designation:LMA-243 Repair Type: Erosion Rating:Serious

Field Date:7/24/2017 Notes: Erosion with sloughing. About 2' vertical cut at top of erosion.

LM Start	2.21	Rating **	A/W	Issue No.	21 (cont)
LM End	2.22	Issue Type +	Ма	Location *	



Photo 2 of 3: LEVAL_SP_2019_416_2727.jpg



N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.21	Rating **	A/W	Issue No.	21 (cont)		
LM End	2.22	Issue Type +	Ма	Location *			
Category	ental	GPS Latitude/Longitude					
Calegory		Start		End			
Item	2017 Stor	m Damage		38.29710	00°	38.297000°	
пеш				-121.69330	00°	-121.693300°	
DWR ID	DWR_RD2098_01_s _ 2018_21						
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of erosion, cracking, and sloughing of

the waterside levee slope.

Site ID No:416

Site Designation:LMA-243 Repair Type: Erosion Rating:Serious Field Date:7/24/2017

Notes: Erosion with sloughing. About 2' vertical cut at top of erosion.



LM Start	2.29	Rating **	A/W	Issue No.		27
LM End	2.31	Issue Type +	Ма	Location *		
Category	Supplemental					e/Longitude
Calegory				Start		End
Item	2017 Stor		38.2959	00°	38.295700°	
пеш			-121.6935	00°	-121.693500°	
DWR ID	DWR_RD2	098_01_f _ 201	7_27			·

Inspector Comment

Comment Code

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the

waterside levee slope.

Site ID No:421

Site Designation:LMA-248

Repair Type: Erosion

Rating:Serious

Field Date:7/24/2017

Notes: Toe of slope has eroded and minor sloughing has started.

Photo 1 of 3: SP_2019_RD2098_244_27_20190311_00014.jpg



N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.29 Rating ** A/W			Issue No.		27 (cont)	
LM End	2.31	Issue Type +	Ma	Location *			
Category	ental	GPS La	atitud	e/Longitude			
Calegory				Start		End	
Item	2017 Stor	m Damage		38.2959	00°	38.295700°	
пеш	em				00°	-121.693500 °	
DWR ID DWR_RD2098_01_f _ 2017_27							
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the

waterside levee slope.

Site ID No:421

Site Designation:LMA-248 Repair Type: Erosion

Rating:Serious Field Date:7/24/2017

Notes: Toe of slope has eroded and minor sloughing has started.

LM Start	2.29	Rating **	A/W	Issue No.	27 (cont)
LM End	2.31	Issue Type +	Ma	Location *	



Photo 3 of 3: SP_2019_RD2098_244_27_20190311_00016.jpg



CR : Crown

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

1110	2 20	Rating **	М	Issue No.		20	
LM Start	2.30	Rating	IVI	issue ivo.		20	
LM End	2.32	Issue Type +	Ma	Location *		WS	
Category	Earthen Levee				atitud	e/Longitude	
Category				Start		End	
Item	Erosion / Bank Caving				70°	38.295430 °	
item			-121.6936	45 °	-121.693628 °		
DWR ID	DWR_RD2	098_01_s _ 201	7_20				
		Comn	nent Cod	le			
E1 : Note a	and monito	or erosion site					
		Inspecto	or Comm	nent			

No Photos

LM Start	2.35	Rating **	A/W	Issue No.	28		
LM End	2.39	Issue Type +	Ma	Location *			
Category Supplemental				GPS La	titud	le/Longitude	
				Start		End	
ltem 2017 Storm Damage				38.29510	00°	38.294500	0
				-121.69340	00°	-121.693400	0
DWR ID DWR_RD2098_01_f _ 2017_28							
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour, sloughing, and cracking of the lower and mid waterside levee slope.

Site ID No:423

Site Designation:LMA-250 Repair Type: Erosion Rating:Area of Concern Field Date:7/24/2017

Notes: 2' of sloughing about half way up the slope.

Photo 1 of 3 : SP_2019_RD2098_244_28_20190311_00017.jpg



N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.35 Rating ** A/W			Issue No.		28 (cont)
LM End	2.39	Issue Type +	Ma	Location *		
Category	ental	GPS La	atitud	le/Longitude		
Calegory				Start		End
Item	2017 Stor	m Damage		38.2951	00°	38.294500 °
пеш		-121.6934	00°	-121.693400 °		
DWR ID DWR_RD2098_01_f _ 2017_28						
Comment Code						

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour, sloughing, and cracking of

the lower and mid waterside levee slope.

Site ID No:423

Site Designation:LMA-250 Repair Type: Erosion Rating:Area of Concern Field Date:7/24/2017

Notes: 2' of sloughing about half way up the slope.

LM Start	2.35	Rating **	A/W	Issue No.	28 (cont)
LM End	2.39	Issue Type +	Ma	Location *	



Photo 3 of 3: SP_2019_RD2098_244_28_20190311_00019.jpg



CR : Crown

Rating

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.75	Rating **	A/W	Issue No. 34		
LM End	2.78	Issue Type +	Ма	Location *		
Category	ental	GPS La	titud	e/Longitude		
Calegory				Start		End
Item	2017 Stor	m Damage		38.2892	00°	38.288800 °
пеш	em				00°	-121.693500 °
DWR ID	DWR ID DWR_RD2098_01_f _ 2017_34					
Comment Code						

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the

waterside levee slope.

Site ID No:429

Site Designation:LMA-256 Repair Type: Erosion

Rating:Serious Field Date:7/25/2017

Notes: Erosion at WS toe, causing sloughing half-way down WS slope.

LM Start	2.75	Rating **	A/W	Issue No.	34 (cont)
LM End	2.78	Issue Type +	Ма	Location *	





Photo 2 of 3: SP_2019_RD2098_244_34_20190311_00021.jpg



N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.75	Rating **	A/W	Issue No.	34 (cont)		
LM End	2.78	Issue Type +	Ма	Location *			
Category	ental	GPS Latitude/Longitude					
Calegory		Start		End			
Item	2017 Stor	m Damage		38.28920	00°	38.288800°	
пеш				-121.69350	00°	-121.693500 °	
DWR ID	DWR ID DWR_RD2098_01_f _ 2017_34						
	Comment Code						

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the

waterside levee slope.

Site ID No:429

Site Designation:LMA-256 Repair Type: Erosion Rating:Serious Field Date:7/25/2017

Notes: Erosion at WS toe, causing sloughing half-way down WS slope.



LM Start	2.78	Rating **	A/W	Issue No.	35		
LM End	2.81	Issue Type +	Ма	Location *			
Category	ental	GPS Latitude/Longitude					
Calegory				Start		End	
Item	2017 Stor	m Damage		38.288800°		38.288400°	
пеш				-121.6935	00°	-121.693500°	
DWR ID DWR_RD2098_01_f _ 2017_35							
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the

waterside levee slope.

Site ID No:430

Site Designation:LMA-257

Repair Type: Erosion

Rating:Serious

Field Date:7/25/2017

Notes: Erosion at waterside toe, causing sloughing 2/3 down waterside

slope.





CR : Crown

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.78	Rating **	A/W	Issue No.	35 (cont)		
LM End	2.81	Issue Type +	Ма	Location *			
Category	ental	GPS Latitude/Longitude					
Calegory				Start		End	
Item	2017 Stor	m Damage		38.2888	00°	38.288400 °	
item				-121.6935	00°	-121.693500 °	
DWR ID DWR_RD2098_01_f _ 2017_35							
	Comment Code						

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the

waterside levee slope.

Site ID No:430

Site Designation:LMA-257 Repair Type: Erosion

Rating:Serious Field Date:7/25/2017

Notes: Erosion at waterside toe, causing sloughing 2/3 down waterside

slope.

LM Start	2.78	Rating **	A/W	Issue No.	35 (cont)
LM End	2.81	Issue Type +	Ma	Location *	

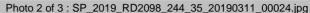




Photo 3 of 3: SP_2019_RD2098_244_35_20190311_00025.jpg



N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.80	Rating **	М	Issue No.		11		
LM End	2.97	Issue Type +	Ma	Location *	WS			
Category Earthen Levee				GPS Latitude/Longitude				
Calegory				Start		End		
Item	Vegetatio	n		38.28859	90°	38.286013 °		
пеш				-121.69364	15 °	-121.693632 °		
DWR ID DWR_RD2098_01_f _ 2017_11								
	0 10 1							

Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

Nearby construction operations forced termination of goat grazing. Vegetation should be cleared.

Photo 1 of 1 : SP_2019_RD2098_244_11_20190311_00001.jpg



View of vegetation on waterside slope.

LM Start	2.80	Rating **	М	Issue No.		12	
LM End	3.60	Issue Type + Ma I		Location *		LS	
Category	Earthen L	GPS La	atitud	e/Longitude			
Calegory				Start		End	
Item	Vegetatio	n		38.2885	90°	38.277458 °	
item				-121.6936	45 °	-121.696303 °	
DWR ID	R ID DWR RD2098 01 f 2017 12						

Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

Nearby construction operations forced termination of goat grazing. Vegetation should be cleared.

Photo 1 of 1 : SP_2019_RD2098_244_12_20190311_00002.jpg



View of vegetation on landside slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.91	Rating **	A/W	Issue No.	36		
LM End	2.93	Issue Type +	Ma	Location *			
Category	ental	GPS Latitude/Longitude					
Calegory			Start		End		
Item	2017 Stor	m Damage		38.28690	00°	38.286700°	
item				-121.69350	00°	-121.693500 °	
DWR ID DWR_RD2098_01_f _ 2017_36							
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the

waterside levee slope.

Site ID No:431

Site Designation:LMA-258 Repair Type: Erosion

Rating:Serious Field Date:7/25/2017

Notes: Erosion of WS toe, resulting in 8' verticle wall.

LM Start	2.91	Rating **	A/W	Issue No.	36 (cont)
LM End	2.93	Issue Type +	Ma	Location *	





Photo 2 of 3: SP_2019_RD2098_244_36_20190311_00027.jpg



Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	2.91	Rating **	A/W	Issue No.	36 (cont)		
LM End	2.93	Issue Type +	Ma	Location *			
Category	Supplemental GPS Latitude/Longitud						
Calegory				Start End			
Item	2017 Stor	m Damage		38.28690	0 °	38.286700 °	
пеш				-121.69350	0 °	-121.693500 °	
DWR ID	DWR_RD2	R_RD2098_01_f _ 2017_36					
	Comment Code						

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the

waterside levee slope.

Site ID No:431

Site Designation:LMA-258 Repair Type: Erosion Rating:Serious

Field Date:7/25/2017

Notes: Erosion of WS toe, resulting in 8' verticle wall.

AND STATE OF THE PARTY OF THE P	No. of Street		
世生			

LM Start	2.99	Rating **	С	Issue No.		37	
LM End	3.29	Issue Type +	Ma	Location *			
Category Supplemental				GPS Latitude/Longitude			
Calegory				Start		End	
Item	2017 Stor	7 Storm Damage		38.2857	00°	38.281500	0
пеш				-121.6935	00°	-121.694300	0
DWR ID	DWR_RD2	098_01_f _ 201	7_37				
		Comn	nent Cod	le			

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the

waterside levee slope.

Site ID No:432

Site Designation:LMA-259

Repair Type: Erosion

Rating:Serious

Field Date:7/25/2017

Notes: Varying erosion and sloughing at WS toe. Revetment at end of

levee section. Repaired in September 2018

No Photos

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	3.18	Rating **	С	Issue No.		17	
LM End	3.60	Issue Type +	Ma	Location *		WS	
Category Earthen Levee				GPS La	atitud	e/Longitude	
Calegory				Start	End		
Itom	Vegetatio	n		38.2830	35 °	38.277458	0
пеш	Item				17°	-121.696303	0
DWR ID DWR_RD2098_01_f _ 2017_17							
	Comment Code						

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

No Photos

LM Start	3.31	Rating **	С	Issue No.		39
LM End	3.32	Issue Type +	Ma	Location *		
Category	Suppleme	ental		GPS La	atitud	le/Longitude
Category				Start		End
Item	2017 Stor	m Damage		38.2812	00°	38.281100 °
пеш				-121.6945	00°	-121.694600 °
DWR ID	DWR_RD2	098_01_f _ 201	7_39			

Comment Code

Inspector Comment Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the lower

waterside levee slope.

Site ID No:433

Site Designation:LMA-260 Repair Type: Erosion

Rating: Area of Concern Field Date: 7/25/2017

Notes: Two combined erosion sites (260 and 261) adjacent to each

other at WS toe. Existing rip rap placed at area of concern.

No Photos

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy

Ob : Design & System Obsolescence

Monitor & Maintain En : Enforcement

Page 2

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Yolo Bypass	Right	3.60	03/26/2019	David Julian

LM Start	3.44	Rating **	С	Issue No.		25
LM End	3.59	Issue Type +	Ма	Location *		LS
Category	Earthen L	evee		GPS La	atitud	e/Longitude
Category				Start		End
Item	Vegetatio	n		38.2795	55 °	38.277490 °
item				-121.6955	88 °	-121.696253 °
DWR ID	DWR_RD2	098_01_f _ 201	8_25			
		Comn	nent Cod	le		
V1 : Contro easements		grass and wee	ds on th	e levee slop	oes a	and
		Inspecto	or Comm	nent		

No Photos

Rating ** Issue No. LM Start 3.50 С 40 Issue Type + Location * LM End 3.56 Ma Supplemental GPS Latitude/Longitude Category 2017 Storm Damage 38.278700° 38.278000° Item -121.695900° -121.696100 ° DWR ID DWR RD2098 01 f 2017 40 Comment Code

No Photos

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the lower and mid waterside levee slope.

Site ID No:435

Site Designation:LMA-262 Repair Type: Erosion Rating:Area of Concern Field Date:7/25/2017

Notes: Two combined sloughing sites adjacent to each other on lower waterside slope. Existing rip rap on beginning 100' section of site 262.

This site is combined with site 263.

+ Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01A Cross Levee	Right	0.53	03/26/2019 03/26/2019	David Julian

	0.00	Dating **	Δ.	Issue No.	I	
LM Start	0.00	Rating **	Α	issue ivo.		2
LM End	0.52	Issue Type +	Ma	Location *		WS
Category	Earthen L	evee		GPS La	atitud	e/Longitude
Calegory				Start		End
Item	Vegetatio	/egetation			82°	38.275722 °
пеш				-121.696270 ° -121.705		
DWR ID	DWR_RD2	098_01A_s _ 20	019_2			
		Comn	nent Coo	le		
V1 : Contro easements		grass and wee	ds on th	e levee slo	pes a	and
Inspector Comment						
Continue to maintain annual vegetation.						



View looking upstream at annual vegetation on the waterside slope (Spring 2019).

LM Start	0.00	Rating **	Α	Issue No.		1
LM End	0.52	Issue Type +	Ma	Location *		LS
Earthen Levee				GPS La	atitud	le/Longitude
Category				Start		End
Item	Vegetatio	n		38.277382°		38.275722°
пеш				-121.6962	70°	-121.705675 °
DWR ID	DWR_RD2	098_01A_s _ 20	017_1			
	Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.						

Inspector Comment

Continue to maintain annual vegetation.



View looking upstream at annual vegetation on the landside slope (Spring 2019).

Rating A : Acceptable M : Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	5.30	Rating **	С	Issue No.		9			
LM End	5.56	Issue Type +	sue Type + Ma Location			WS			
Category	GPS La	titud	e/Longitude						
Calegory				Start		End			
Item	Vegetatio	n		38.2757	57°	38.278863			
пеш		-121.705818 ° -121.70868							
DWR ID DWR_RD2098_02_s _ 2017_9									

Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

Remove the wild weed growth from the waterside levee slope.

Photo 1 of 1: SP_2019_RD2098_246_6_20190329_00038.jpg

No Photos



View looking upstream at annual vegetation on the waterside slope (Spring 2019).

LM Start	5.30	Rating ** A		Issue No.		6	
LM End	7.19	Issue Type +	Location *		WS		
Category	evee	GPS La	atitud	le/Longitude			
Calegory			Start		End		
Item	Vegetatio	n		38.2757	57°	38.293139°	
пеш				-121.7058	18 °	-121.724174°	
DWR ID	DWR ID DWR_RD2098_02_s _ 2019_6						

Comment Code

V1 : Control annual grass and weeds on the levee slopes and easements.

Inspector Comment

LMA is doing a good job of maintaining annual vegetation

LM Start	5.30	Rating **	Α	Issue No.	14		
LM End	7.19	Issue Type +	Ма	Location *	LS		
Category	evee	GPS La	atitud	e/Longitude			
Category				Start		End	
Item	Vegetatio	n		38.2757	57°	38.293139°	
пеш				-121.7058	18°	-121.724174°	
DWR ID DWR_RD2098_02_s _ 2019_14							
Comment Code							

V1: Control annual grass and weeds on the levee slopes and easements

Inspector Comment

LMA is doing a good job maintaining annual vegetation



View looking upstream at annual vegetation on the landside slope (Spring 2019).

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	5.48	Rating **	С	Issue No.	8			
LM End	5.61	Issue Type +	Ma	Location *	LS			
Category	evee	GPS La	atitud	le/Longitude				
Calegory	Category					End		
Item	Vegetatio	n		38.2779	22 °	38.279443 °		
пеш				-121.7076	98 °	-121.709233 °		
DWR ID DWR_RD2098_02_s _ 2017_8								
Comment Code								

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

Remove the wild weed growth from the landside levee slope and berm.

Photo 1 of 1 : SP_2019_RD2098_246_11_20190311_00004.jpg

No Photos

LM Start	5.88	Rating **	M	Issue No.		11	
LM End	5.88	Issue Type +	Ma	Location *	WS		
Category	GPS Latitude/Longitude						
Category				Start		End	
Item	Erosion /	Bank Caving		38.2829	46°	38.282946 °)
пеш				-121.7109	02 °	-121.710902 °)
DWR ID	DWR_RD2	098_02_s _ 201	8_11				

Comment Code

E1: Note and monitor erosion site.

Inspector Comment

This waterside slump site is not new, and is somewhat protected by riprap and thick brushy vegetation, but it has the potential to erode into crown during high water with a strong south wind. It currently has a two-foot vertical scarp at the levee shoulder.



Repair slumping on waterside slope.

LM Start	5.89	Rating **	С	Issue No.	13					
LM End	6.15	Issue Type +	Ma	Location *	LS					
Category Earthen Levee				GPS La	atitud	e/Longitude				
Calegory				Start		End				
Item	Vegetatio	n		38.2830	53°	38.284662	0			
пеш	-121.7110	10°	-121.715028	0						
DWR ID	DWR_RD2	098_02_f _ 201	8_13							
	0									

Comment Code

V1 : Control annual grass and weeds on the levee slopes and easements.

Inspector Comment

No Photos

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.12	Rating **	М	Issue No.		12			
LM End	6.12	Issue Type +	Ma	Location *		LS			
Category	Earthen L	evee		GPS La	atitud	e/Longitude			
Calegory						End			
Item	Encroach	ments		38.2843	48 °	38.284348 °			
пеш				-121.7146	82 °	-121.714682 °			
DWR ID	DWR ID DWR_RD2098_02_f _ 2016_12								
		Comn	nent Cod	le					
TR : Tree	or limb								
		Inspecto	or Comm	nent					
Remove this nut tree from the landside slope.									

No Photos

LM Start	6.46	Rating **	A/W	Issue No.		15		
LM End	6.46	Issue Type +	Ma	Location *				
Category			GPS Latitude/Longitude					
Calegory	Category			Start		End		
Item	2017 Stor	m Damage		38.28870	0°	38.288800 °		
пеш				-121.71700	0°	-121.717000 °		
DWR ID	DWR_RD2	098_02_f _ 201	7_15					
	Comment Code							

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour of the lower and mid waterside levee slope.

Site ID No:440

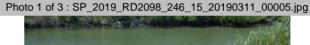
Site Designation:LMA-267

Repair Type: Erosion

Rating:Area of Concern

Field Date:7/25/2017

Notes: Sloughing on waterside slope due to toe erosion.





CR : Crown

N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.46	Rating **	A/W	Issue No.		15 (cont)
LM End	6.46	Issue Type +	Ma	Location *		
Category Supplemental			GPS Latitude/Longitude			
Calegory	Calegory			Start		End
ltom	2017 Storm Damage			38.2887	00°	38.288800 °
пеш	Item			-121.7170	00°	-121.717000 °
DWR ID	DWR ID DWR_RD2098_02_f _ 2017_15					
	Comment Code					

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour of the lower and mid

waterside levee slope.

Site ID No:440

Site Designation:LMA-267 Repair Type: Erosion Rating: Area of Concern Field Date:7/25/2017

Notes: Sloughing on waterside slope due to toe erosion.

LM Start	6.46	Rating **	A/W	Issue No.	15 (cont)
I M End	6.46	Issue Type +	Ma	Location *	





Photo 3 of 3: SP_2019_RD2098_246_15_20190311_00007.jpg



N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.47	Rating **	A/W	Issue No.		17
LM End	6.48	Issue Type +	Ma	Location *		
Category			GPS Latitude/Longitude			
Calegory		Start		End		
Itom	2017 Storm Damage			38.28890	00°	38.289000°
item	Item			-121.71700	00°	-121.717000 °
DWR ID DWR_RD2098_02_f _ 2017_17						
Comment Code						

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the lower and mid waterside levee slope.

Site ID No:441

Site Designation:LMA-268 Repair Type: Erosion Rating:Area of Concern Field Date:7/25/2017

Notes: Sloughing on waterside slope due to toe erosion.

LM Start	6.47	Rating **	A/W	Issue No.	17 (cont)
LM End	6.48	Issue Type +	Ма	Location *	



Photo 2 of 3: SP_2019_RD2098_246_17_20190311_00009.jpg



N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.47	Rating **	A/W	Issue No.		17 (cont)	
LM End	6.48	Issue Type +	Ma	Location *			
Category			GPS Latitude/Longitude				
Calegory	Category			Start		End	
Item	2017 Stor	m Damage		38.2889	00°	38.289000	0
пеш					00°	-121.717000	0
DWR ID	DWR_RD2	098_02_f _ 201	7_17				
		Comn	nent Coo	de			

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the lower and mid waterside levee slope.

Site ID No:441

Site Designation:LMA-268 Repair Type: Erosion Rating:Area of Concern Field Date:7/25/2017

Notes: Sloughing on waterside slope due to toe erosion.



LM Start	6.48	Rating **	M	Issue No.	7		
LM End	6.74	Issue Type +	Ma	Location *	LS		
Category Earthen Levee			GPS Latitude/Longitude				
Calegory			Start		End		
Item	Vegetatio	n		38.2890	80°	38.292467	0
пеш			-121.7168	52 °	-121.716140	0	
DWR ID	DWR_RD2	098_02_f _ 201	7_7				
		Comn	nent Cod	le			

V2 : Remove the wild growth other than native grasses from the levee slopes.

Inspector Comment

No Photos

LS: Land Side WS: Water Side	N/A: Not Applicable
WS: Water Side	

* Location

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.64	Rating **	A/W	Issue No.		18
LM End	6.65	Issue Type +	Ma	Location *		
Category Supplemental			GPS Latitude/Longitude			
Calegory		Start		End		
Item	2017 Stor	m Damage		38.2913	00°	38.291400°
item				-121.716100°		-121.716000°
DWR ID DWR_RD2098_02_f _ 2017_18						
Comment Code						

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour, cracking, instability, and sloughing of the waterside levee slope.

Site ID No:442

Site Designation:LMA-269 Repair Type: Erosion Rating:Serious Field Date:7/25/2017

Notes: Two sloughing sections along waterside slope due to toe erosion.

LM Start	6.64	Rating **	A/W	Issue No.	18 (cont)
LM End	6.65	Issue Type +	Ma	Location *	



Photo 2 of 3: SP_2019_RD2098_246_18_20190311_00012.jpg



N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.64	Rating **	A/W	Issue No.		18 (cont)		
LM End	6.65	Issue Type +	Ma	Location *				
Category				GPS Latitude/Longitude				
Calegory						End		
Item	2017 Stor	m Damage		38.29130	00°	38.291400°		
пеш						-121.716000°		
DWR ID	D DWR_RD2098_02_f _ 2017_18							
Comment Code								

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour, cracking, instability, and sloughing of the waterside levee slope.

Site ID No:442

Site Designation:LMA-269 Repair Type: Erosion Rating:Serious Field Date:7/25/2017

Notes: Two sloughing sections along waterside slope due to toe erosion.



LM Start	6.71	Rating **	М	Issue No.		22
LM End	6.71	Issue Type +	Ma	Location *		
Category	Supplemental			GPS La	titud	le/Longitude
Calegory				Location * GPS Latitude/Longitude Start End ity 38.292194 38.2921	End	
Item	DWR UCI	P LMA Respo	onsibility	38.29219	94°	38.292194°
iteiii				-121.7158	53 °	-121.715853°
DWR ID	20976					

Inspector Comment

Comment Code

FS_ID:33784 DS_ID:20976 EP_NO: 10172

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 03/18/2014 Headwalls on WS toe failing at outlet. It is unclear if these were permanent installations or something that was installed as a temporary fix. (W. Wylie - DWR UCIP)

FIELD_STRUCT_DESC: 1 of 2: 48-inch corrugated metal drainage pipe through the levee, 29 feet below the crown. Two slide gates in a 7-foot-diameter corrugated metal pipe (CMP) riser on the waterside (WS) slope. (two 48-inch [HLM 6.75] authorized under Automatic Board Order (ABO) issued as Permit No. 10172, 1974 - Moresco Brothers).

[Additional Reference(s): DWR Levee Log. 2003. LISACE Sacramento.

[Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 6.75)].

FS Date: 3/18/2014

Photo 1 of 3: UCIP_SP_2019_33784_61162.jpg



Two slide gates in 7-foot diameter CMP riser on waterward slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.71	Rating **	М	Issue No.		22 (cont)	
LM End	6.71	Issue Type +	Ма	Location *			
Category	Supplemental				GPS Latitude/Longitude		
Calegory	egory			Start		End	
Item	DWR UC	IP LMA Respo	nsibility	38.29219	94°	38.292194°	
item				-121.7158	53 °	-121.715853 °	
DWR ID	20976						
	Comment Code						

Inspector Comment

FS_ID:33784 DS_ID:20976 EP_NO: 10172

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 03/18/2014 Headwalls on WS toe failing at outlet. It is unclear if these were permanent installations or something that was

installed as a temporary fix. (W. Wylie - DWR UCIP)

FIELD_STRUCT_DESĆ: 1 of 2: 48-inch corrugated metal drainage pipe through the levee, 29 feet below the crown. Two slide gates in a 7-foot-diameter corrugated metal pipe (CMP) riser on the waterside (WS) slope. (two 48-inch [HLM 6.75] authorized under Automatic Board Order (ABO) issued as Permit No. 10172, 1974 - Moresco Brothers). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento

O&M Manual 109, April 1962, (HLM 6.75)].

FS Date: 3/18/2014

LM Start	6.71	Rating **	М	Issue No.	22 (cont)
LM End	6.71	Issue Type +	Ma	Location *	

Photo 2 of 3: UCIP_SP_2019_33784_61161.jpg



Inlet not visible on LS toe.





View inside CMP riser on WS shoulder.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.72	Rating **	М	Issue No.		23
LM End	6.72	Issue Type +	Ма	Location *		
Category	Supplemental			GPS Latitude/Longitude		
Calegory				Start		End
Item	DWR UC	IP LMA Respo	nsibility	38.2922	34°	38.292234°
пеш				*		-121.715875°
DWR ID	20961					
Comment Code						

Inspector Comment

FS_ID:32285 DS_ID:20961 EP_NO: 10172

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 03/18/2014 Headwalls at WS toe failing. It is uncertain if these retaining walls were a permanent fixture or a

temporary fix that failed. (W. Wylie - DWR UCIP)

FIELD_STRUCT_DESC: 2 of 2: 48-inch corrugated metal drainage pipe through the levee, 29 feet below the crown. Two slide gates in a 7-foot-diameter corrugated metal pipe (CMP) riser on the waterside (WS) slope. (two 48-inch pipes [HLM 6.75] authorized under Automatic Board Order (ABO) issued as Permit No. 10172, 1974 - Moresco Brothers). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 6.75)].

FS Date: 3/18/2014

LM Start	6.72	Rating **	М	Issue No.	23 (cont)
LM End	6.72	Issue Type +	Ma	Location *	

Photo 1 of 3: UCIP_SP_2019_32285_58749.jpg



Inlet not visible on LS toe.

Photo 2 of 3: UCIP_SP_2019_32285_58748.jpg



7-foot diameter CMP riser with two slide gates inside.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.72	Rating **	М	Issue No.		23 (cont)
LM End	6.72	Issue Type +	Ма	Location *		
Category	Suppleme	GPS Latitude/Longitude				
Calegory				Start		End
Item	DWR UC	nsibility	38.29223	4 °	38.292234°	
пеш				-121.71587	5°	-121.715875°
DWR ID	20961					

Comment Code

Inspector Comment

FS ID:32285 DS_ID:20961 EP NO: 10172

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 03/18/2014 Headwalls at WS toe failing. It is uncertain if these retaining walls were a permanent fixture or a

temporary fix that failed. (W. Wylie - DWR UCIP)

FIELD_STRUCT_DESC: 2 of 2: 48-inch corrugated metal drainage pipe through the levee, 29 feet below the crown. Two slide gates in a 7-footdiameter corrugated metal pipe (CMP) riser on the waterside (WS) slope. (two 48-inch pipes [HLM 6.75] authorized under Automatic Board Order (ABO) issued as Permit No. 10172, 1974 - Moresco Brothers). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 6.75)].

FS Date: 3/18/2014



7-foot diameter CMP riser with two slide gates inside.

LM Start	6.74	Rating **	A/W	Issue No.		19	
LM End	6.75	Issue Type +	Ma	Location *	LS		
Category	Suppleme	GPS Latitude/Longitude					
Calegory					Start		
Item	2017 Stor	m Damage		38.2925	00°	38.292600	٥
item				-121.7161	00 °	-121.716200	٥
DWR ID	DWR_RD2	098_02_f _ 201	7_19				

Inspector Comment

Comment Code

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the landside levee slope.

Site ID No:443

Site Designation:LMA-270 Repair Type: Stability Rating:Area of Concern Field Date:7/25/2017

Notes: Sloughing on crown into upper portion of landside levee slope.

Photo 1 of 3: SP_2019_RD2098_246_19_20190311_00014.jpg



Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.74	Rating **	A/W	Issue No.	19 (cont)		
LM End	6.75	Issue Type +	Ma	Location *		LS	
Category				GPS Latitude/Longitude			
Calegory						End	
2017 Storm Damage				38.2925	00°	38.292600 °	
item		-121.7161	00°	-121.716200 °			
DWR ID DWR_RD2098_02_f _ 2017_19							
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the

landside levee slope. Site ID No:443

Site Designation:LMA-270 Repair Type: Stability Rating:Area of Concern Field Date:7/25/2017

Notes: Sloughing on crown into upper portion of landside levee slope.

LM Start	6.74	Rating **	A/W	Issue No.	19 (cont)
LM End	6.75	Issue Type +	Ma	Location *	LS

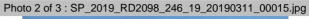




Photo 3 of 3: SP_2019_RD2098_246_19_20190311_00016.jpg



N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.77	Rating **	A/W	Issue No.	20				
LM End	6.80	Issue Type +	Ma	Location *	LS				
Category	Supplemental					GPS Latitude/Longitude			
Calegory			Start		End				
2017 Storm Damage				38.292900 °		38.293000°			
пеш			-121.71660	00°	-121.717000 °				
DWR ID DWR_RD2098_02_f _ 2017_20									
Comment Code									

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of cracking of the levee crest.

Site ID No:444

Site Designation:LMA-271 Repair Type: Erosion Rating:Area of Concern Field Date:7/25/2017

Notes: Two combined sloughing locations (271 and 272) within levee crown into waterside and landside slopes. Sloughing on landside slope

bulges into ditch at toe.

LM Start	6.77	Rating **	A/W	Issue No.	20 (cont)
LM End	6.80	Issue Type +	Ma	Location *	LS

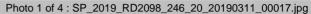




Photo 2 of 4: SP_2019_RD2098_246_20_20190311_00018.jpg



Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	6.77	Rating **	A/W	//W Issue No. 20 (con		20 (cont)	
LM End	6.80	Issue Type +	Ma	Location *	LS		
Category	ental	GPS La	titud	le/Longitude			
Calegory			Start		End		
Item	2017 Stor		38.2929	00°	38.293000°		
пеш	-121.716600 ° -121.717000						
DWR ID DWR_RD2098_02_f _ 2017_20							
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of cracking of the levee crest.

Site ID No:444

Site Designation:LMA-271 Repair Type: Erosion Rating:Area of Concern Field Date:7/25/2017

Notes: Two combined sloughing locations (271 and 272) within levee crown into waterside and landside slopes. Sloughing on landside slope

bulges into ditch at toe.

LM Start	6.77	Rating **	A/W	Issue No.	20 (cont)
LM End	6.80	Issue Type +	Ma	Location *	LS

Photo 3 of 4: SP_2019_RD2098_246_20_20190311_00019.jpg



Photo 4 of 4: SP_2019_RD2098_246_20_20190311_00020.jpg



10/26/17: Notice depression in crown road and slumping toward the left/landside (bulge at toe of levee).

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	7.24	Rating **	A/W	Issue No.	25		
LM End	7.24	Issue Type +	Ма	Location *			
Category	Suppleme	ental		GPS La	tituc	le/Longitude	
Calegory	Start End						
Itom	DWR UC	IP LMA Respo	nsibility	38.29374	۱1°	38.293741 °	
-121.724787 ° -121.724787							
DWR ID 20978							
Comment Code							

Inspector Comment

FS_ID:32303 DS_ID:20978 EP_NO: 10171

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 09/14/2017 Permit review indicates this 24-inch pipe was authorized as an irrigation and drainage pipe under ABO issued as Permit No. 10171, structure description was updated. Structure type logged as drainage. (DWR UCIP - O. Magana)

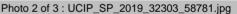
FIELD_STRUCT_DESC: *ABANDONED* 24-inch steel dual-purpose irrigation and drainage pipe through the levee, 4.5 feet below the crown. Corrugated metal cutoff wall around the pipe. Pipe has welded steel plate over end on the landside (LS) slope and is not visible on the waterside (WS) slope. (24-inch pipe [HLM 7.23] authorized under Automatic Board Order (ABO) issued as Permit No. 10171, 1974 - Glenn A. Bowlsbey). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 7.28)]. FS Date: 3/18/2014 7:07:14 AM

 LM Start
 7.24
 Rating **
 A/W
 Issue No.
 25 (cont)

 LM End
 7.24
 Issue Type +
 Ma
 Location *



Pipe visible under new pipe on LS slope.





Pipe visible under new pipe on LS slope.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Cache Slough	Left	1.89	03/26/2019 03/26/2019	David Julian

LM Start	7.24 Rating ** A/W			Issue No.		25 (cont)		
LM End	7.24	Issue Type +	Ма	Location *				
Category	Suppleme	ental		GPS La	titud	le/Longitude		
Calegory	Start End							
Item	DWR UCIP LMA Responsibility					38.293741 °		
пеш	-121.724787 ° -121.724787							
DWR ID 20978								
Comment Code								

Inspector Comment

FS ID:32303 DS_ID:20978 EP NO: 10171

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 09/14/2017 Permit review indicates this 24-inch pipe was authorized as an irrigation and drainage pipe under ABO issued as Permit No. 10171, structure description was updated. Structure type logged as drainage. (DWR UCIP - O. Magana)

FIELD_STRUCT_DESC: *ABANDONED* 24-inch steel dual-purpose irrigation and drainage pipe through the levee, 4.5 feet below the crown. Corrugated metal cutoff wall around the pipe. Pipe has welded steel plate over end on the landside (LS) slope and is not visible on the waterside (WS) slope. (24-inch pipe [HLM 7.23] authorized under Automatic Board Order (ABO) issued as Permit No. 10171, 1974 -Glenn A. Bowlsbey). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 7.28)].

FS Date: 3/18/2014 7:07:14 AM





Welded steel cap over LS end of pipe.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	7.29	Rating **	Α	Issue No.	6				
LM End	8.33	Issue Type +	Ma	Location *	LS				
Category	evee	GPS Latitude/Longitude							
Calegory		Start		End					
Item	Vegetatio	38.29447	73 °	38.306635°					
пеш				-121.72509	92 °	-121.731700°			
DWR ID	DWR ID DWR_RD2098_03_s _ 2019_6								
Comment Code									
V1 : Contro	V1 : Control annual grass and weeds on the levee slopes and								

easements.

Inspector Comment

LMA doing a good job maintaining annual vegetation



View looking upstream at annual vegetation on the landside slope (Spring 2019).

LM Start	7.29 Rating ** A		Issue No.		8	
LM End	8.33	Issue Type +	Ма	Location *	cation * WS	
Category	Earthen L		GPS La	atitud	e/Longitude	
Calegory				Start		End
Item	Vegetatio	n		38.2944	73°	38.306635 °
пеш				-121.7250	92 °	-121.731700 °
DWR ID	DWR RD2098 03 s 2019 8					

Comment Code

V1 : Control annual grass and weeds on the levee slopes and easements.

Inspector Comment

LMA doing a good job maintaining annual vegetation

Photo 1 of 1: SP_2019_RD2098_247_8_20190326_00020.jpg



View looking upstream at annual vegetation on the waterside slope (Spring 2019).

LM Start	7.33	Rating **	М	Issue No.		7			
LM End	7.72	Issue Type +	Ma	Location *	WS				
Category	Suppleme	ental		GPS La	atitud	le/Longitude			
Start									
Item		ACE Erosion S	Survey,	38.2948	58°	38.299606	c		
пеш	DRAFT -121.725433 ° -121.72862								
DWR ID DWR_RD2098_03_f _ 2018_7									
Comment Code									

Inspector Comment

2017 Site ID: HAS 7.9 L

Status: Eroding

2017 Field Notes: deep cracks along bank and toe, intermittent slump. Site History: 2011 - Large vertical erosion pockets and bank slumping. No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	7.51	Rating **	М	Issue No.		1			
LM End	7.51	Issue Type +	Ma	Location *		LS			
Category	Earthen Levee					e/Longitude			
Calegory				Start		End			
Item	Slope Sta	bility		38.2968	46°	38.296846 °			
пеш				-121.7275	46°	-121.727546°			
DWR ID	DWR ID DWR_RD2098_03_f _ 2016_1								
	Comment Code								
S2 : Repai where pos		slope damag	jed by fo	ot traffic an	d pre	event access			
		Inspecto	or Comm	nent					
Livestock	Livestock activity causing erosion of levee slope.								

Rating **

Issue Type +

LM Start

LM End

7.51

Issue No.

Location *

1 (cont)

LS



Close up. Looking upstream.

Photo 2 of 3: SP_2019_RD2098_247_1_20190311_00002.jpg



Looking downstream.

Photo 3 of 3: SP_2019_RD2098_247_1_20190311_00003.jpg

LM Start	7.51	Rating **	М	Issue No.	1 (cont)
LM End	7.51	Issue Type +	Ma	Location *	LS



Erosion site on 03/15/18.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	7.61	Rating **	A/W	Issue No.		10
LM End	7.62	Issue Type +	Ма	Location *		
Category	ental	GPS Latitude/Longitude				
Calegory			Start		End	
Item	2017 Stor	m Damage		38.2979	00°	38.298100°
пеш			-121.7289	00°	-121.728900 °	
DWR ID DWR_RD2098_03_f _ 2017_10						
Comment Code						

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of sloughing of the lower and mid

waterside levee slope.

Site ID No:449

Site Designation:LMA-276 Repair Type: Erosion Rating:Area of Concern Field Date:7/27/2017

Notes: Sloughing on waterside slope due to erosion at waterside toe.

LM Start	7.61	Rating **	A/W	Issue No.	10 (cont)
LM End	7.62	Issue Type +	Ma	Location *	



Photo 2 of 3: SP_2019_RD2098_247_10_20190311_00007.jpg



N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	7.61	Rating **	A/W	Issue No.		10 (cont)		
LM End	7.62	Issue Type +	Ма	Location *				
Category				GPS Latitude/Longitude				
Category			Start		End			
Item	2017 Stor	m Damage		38.2979	° 00	38.298100 °		
пеш			-121.7289	° 00	-121.728900 °			
DWR ID DWR_RD2098_03_f _ 2017_10								
Comment Code								

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of sloughing of the lower and mid

waterside levee slope.

Site ID No:449

Site Designation:LMA-276 Repair Type: Erosion Rating: Area of Concern Field Date:7/27/2017

Notes: Sloughing on waterside slope due to erosion at waterside toe.



LM Start	7.63	Rating **	A/W	Issue No.		13		
LM End	7.64	Issue Type +	Ма	Location *				
Category				GPS Latitude/Longitude				
Calegory			Start		End			
Itom	2017 Stor	m Damage		38.2983	00°	38.298400 °		
item	Item				00°	-121.728800 °		
DWR ID DWR_RD2098_03_f _ 2017_13								
Comment Code								

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the

waterside levee slope.

Site ID No:450

Site Designation:LMA-277

Repair Type: Erosion

Rating:Area of Concern

Field Date:7/27/2017

Notes: Sloughing on waterside due to waterside toe erosion.

Photo 1 of 3: SP_2019_RD2098_247_13_20190311_00009.jpg



: Minimally Acceptable CR : Crown U : Unacceptable

N: Not Inspected/Rated C : Corrected

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	7.63	Rating **	A/W	Issue No.		13 (cont)	
LM End	7.64	Issue Type +	Ма	Location *			
Category	ental	GPS Latitude/Longitude					
Calegory			Start		End		
Item	2017 Stor	m Damage		38.2983	00°	38.298400 °	
пеш				-121.7288	00°	-121.728800 °	
DWR ID DWR_RD2098_03_f _ 2017_13							
Comment Code							

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the

waterside levee slope.

Site ID No:450

Site Designation:LMA-277 Repair Type: Erosion Rating: Area of Concern Field Date:7/27/2017

Notes: Sloughing on waterside due to waterside toe erosion.

LM Start	7.63	Rating **	A/W	Issue No.	13 (cont)
LM End	7.64	Issue Type +	Ма	Location *	

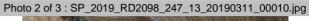




Photo 3 of 3: SP_2019_RD2098_247_13_20190311_00011.jpg



N: Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	7.66	Rating **	A/W	Issue No.		15
LM End	7.68	Issue Type +	Ма	Location *		
Supplemental				GPS Latitude/Longitude		
Category				Start		End
Itom	2017 Stor	m Damage		38.2987	00°	38.299000°
пеш	Item				00°	-121.728600 °
DWR ID DWR_RD2098_03_f _ 2017_15						
Comment Code						

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the lower and mid waterside levee slope.

Site ID No:451

Site Designation:LMA-278 Repair Type: Erosion Rating:Area of Concern Field Date:7/27/2017

Notes: Sloughing on waterside slope due to waterside toe erosion. Additional erosion seen on the spring 2019 inspection. Mitigate erosion then monitor site.

LM Start	7.66	Rating **	A/W	Issue No.	15 (cont)
LM End	7.68	Issue Type +	Ма	Location *	

Photo 1 of 4 : SP_2019_RD2098_247_15_20190326_00024.jpg



View looking upstream at erosion at the storm damage site that has worsten over January and February of 2019 (Spring 2019).

Photo 2 of 4: SP_2019_RD2098_247_15_20190311_00012.jpg



Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	7.66	Rating **	A/W	Issue No.		15 (cont)
LM End	7.68	Issue Type +	Ma	Location *		
Supplemental			GPS Latitude/Longitude			
Category			Start		End	
Item	2017 Stor	m Damage		38.29870	00°	38.299000°
item	item					-121.728600 °
DWR ID DWR_RD2098_03_f _ 2017_15						
Comment Code						

Inspector Comment

Levee Evaluation Comments

Description: The damage consists of scour and sloughing of the lower

and mid waterside levee slope.

Site ID No:451

Site Designation:LMA-278 Repair Type: Erosion Rating:Area of Concern Field Date:7/27/2017

Notes: Sloughing on waterside slope due to waterside toe erosion. Additional erosion seen on the spring 2019 inspection. Mitigate erosion then monitor site.

LM Start	7.66	Rating **	A/W	Issue No.	15 (cont)
LM End	7.68	Issue Type +	Ma	Location *	



Photo 4 of 4 : SP_2019_RD2098_247_15_20190311_00014.jpg



CR : Crown

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	7.87	Rating **	М	Issue No.		9	
LM End	7.87	Issue Type +	Ма	Location *		WS	
Earthen Levee				GPS Latitude/Longitude			
Calegory	Category			Start		End	
Item	Encroachments			38.30170)7°	38.301707	0
пеш			-121.72804	15 °	-121.728045	0	
DWR ID DWR_RD2098_03_s _ 2014_9							

Comment Code

TR: Tree or limb

Inspector Comment

Remove the fallen tree limb from the water side slope.



View of fallen tree limb on the water side slope (October 2018).

No Photos

LM Start	8.05	Rating **	М	Issue No.		12
LM End	8.34	Issue Type +	Ma	Location *		WS
Category	Supplemental			GPS Latitude/Longitude		
Calegory		Start		End		
Item		ACE Erosion S	Survey,	38.30427	'8°	38.306705 °
пеш	DRAFT			-121.72796	° 0	-121.732014°
DWR ID	DWR_RD2	098_03_f _ 201	8_12			

Comment Code

Inspector Comment

2017 Site ID: HAS 8.4 L Status: Eroding New

2017 Field Notes: Horizontal cracks; scour along toe; poorly

constructed levee susceptible to erosion.

Site History:

LM Start	8.07	Rating **	A/W	Issue No.		5
LM End	8.07	Issue Type +	Ma	Location *		WS
Category Earthen Levee			GPS Latitude/Longitude			
Category				Start		End
Item	Cracking			38.3045	53°	38.304553 °
пеш				-121.7278	53 °	-121.727853 °
DWR ID DWR_RD2098_03_f _ 2018_5						

Comment Code

CR1: Monitor and have inspected by geotechnical engineer.

Inspector Comment

Cracks in waterside shoulder parallel to levee should be monitored for additional movement. Currently up to 2 inchs wide and 50 feet long. Probed to 3.5 feet deep. Up to 1 inch of vertical offset observed on 10/26/17. No change as of 03/15/18.

Photo 1 of 1: SP_2019_RD2098_247_5_20190311_00004.jpg



View upstream of cracks in waterside shoulder.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	8.16	Rating **	A/W	Issue No.		17		
LM End	8.16	Issue Type +	Ма	Location *				
Category	Supplemental				GPS Latitude/Longitude			
Calegory				Start		End		
Item	DWR UCIP LMA Responsibility			38.3054	62 °	38.305462°		
пеш			-121.728881 °		-121.728881 °			
DWR ID	20981					·		

Comment Code

Inspector Comment

FS_ID:51453 DS_ID:20981 EP_NO: 10174

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 12/22/2016 Crossing has been downgraded from Urgent to No Action Needed walkways on both WS and LS have been rebuilt and the WS gate has been upgraded to stainless steel where previous corrodable material was present. (O. Magana - DWR UCIP)03/19/2014 Current walkway to slidegate on WS toe does not provide safe access to operate slidegate. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 36-inch steel dual-purpose irrigation and drainage pipe through the levee, 26 feet below the crown. Two corrugated metal cutoff walls around the pipe. Walkway to the slide gate on the waterside (WS) end. Combination slide and flap gate on the landside (LS) end. 48-inch corrugated metal pipe (CMP) riser and an adjoining pump on a metal pier at the LS toe. (36-inch pipe [HLM 8.20] authorized under Automatic Board Order (ABO) issued as Permit No. 10174, 1974 - Glen A. Bowlsbey). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 8.20)].

FS Date: 12/22/2016

LM Start	8.16	Rating **	A/W	Issue No.	17 (cont)
LM End	8.16	Issue Type +	Ma	Location *	



Walkway has been re-built, photo 1 of 2.



Walkway has been re-built, photo 2 of 2.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	8.16	Rating **	A/W	Issue No.	17 (cont)			
LM End	8.16	Issue Type +	Ма	Location *				
Category				GPS Latitude/Longitude				
Calegory				Start		End		
Item	DWR UC	IP LMA Respo	nsibility	38.305462°		38.305462 °		
пеш				-121.7288	81 °	-121.728881 °		
DWR ID	DWR ID 20981							
	Comment Code							

Inspector Comment

FS_ID:51453 DS_ID:20981 EP_NO: 10174

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 12/22/2016 Crossing has been downgraded from Urgent to No Action Needed walkways on both WS and LS have been rebuilt and the WS gate has been upgraded to stainless steel where previous corrodable material was present. (O. Magana - DWR UCIP)03/19/2014 Current walkway to slidegate on WS toe does not provide safe access to operate slidegate. (W. Wylie - DWR UCIP) FIELD_STRUCT_DESC: 36-inch steel dual-purpose irrigation and drainage pipe through the levee, 26 feet below the crown. Two corrugated metal cutoff walls around the pipe. Walkway to the slide gate on the waterside (WS) end. Combination slide and flap gate on the landside (LS) end. 48-inch corrugated metal pipe (CMP) riser and an adjoining pump on a metal pier at the LS toe. (36-inch pipe [HLM 8.20] authorized under Automatic Board Order (ABO) issued as Permit No. 10174, 1974 - Glen A. Bowlsbey). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 8.20)].

FS Date: 12/22/2016



View of levee crown at pipe crossing.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	8.35	Rating **	A/W	Issue No.	18		
LM End	8.35	Issue Type +	Ma	Location *			
Category Supplemental				GPS Latitude/Longitude			
Calegory				Start		End	
Item	DWR UC	IP LMA Respo	onsibility	38.3069	16°	38.306916 °	
пеш				-121.73198	34 °	-121.731984°	
DWR ID	20962						
Comment Code							

Inspector Comment

FS_ID:32384 DS_ID:20962 EP_NO: 10174

Repair Type: No Action Needed Crossing Status: Found UCIP Comments:

FIELD_STRUCT_DESC: 60-inch corrugated metal drainage pipe through the levee, 25.5 feet below the crown. Walkway to the slide gates at both ends of the pipe. (Permit No. 1607, 1951 - R. F. Moore and Lorraine W. Zanetti. This pipe was retained under Automatic Board Order (ABO) issued as Permit No. 10174, 1974 - Glen A. Bowlsbey). [Additional Reference(s): DWR Levee Log, 2003. USACE Sacramento O&M Manual 109, April 1962, (HLM 8.40)].

FS Date: 3/19/2014

LM Start	8.35	Rating **	A/W	Issue No.	18 (cont)
LM End	8.35	Issue Type +	Ma	Location *	

Photo 1 of 2: UCIP_SP_2019_32384_58883.jpg



Slide gate at LS toe.

Photo 2 of 2: UCIP_SP_2019_32384_58882.jpg



Walkway with slide gate on WS toe.

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 Haas Slough	Right	1.94	03/26/2019 03/26/2019	David Julian

LM Start	8.36	Rating **	М	Issue No.		14	
LM End	8.71	Issue Type +	Ма	Location *	CR		
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Vegetatio	n		38.3069	70°	38.311349°	
item				-121.7320	07°	-121.734760 °	
DWR ID DWR_RD2098_03_s _ 2019_14							
		Comn	nent Cod	le			
V1 : Control annual grass and weeds on the levee slopes and easements.							
		Inspecto	or Comm	ent			
Maintain vegetation on the crown							

Photo 1 of 1 : SP_2019_RD2098_247_14_20190326_00025.jpg

View looking upstream at annual vegetation on the crown (Spring 2019).

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

	0.40	Doting **	Δ.	Issue No		40	
LM Start	9.18	Rating **	Α	issue ivo.	10		
LM End	9.77	Issue Type +	Ma	Location *	LS		
Category Earthen Levee				GPS Latitude/Longitude			
Calegory						End	
Item	Vegetation			38.316543 °		38.358110°	
пеш				-121.740085 °		-121.740381 °	
DWR ID DWR_RD2098_04_s _ 2019_10							
Comment Code							
V1 : Control annual grass and weeds on the levee slopes and easements.							
Inspector Comment							

Vegetation well managed in this area.



View looking upstream at annual vegetation on the landside slope (Spring 2019).

LM Start	9.18	Rating **	Α	Issue No.		Issue No.		11
LM End	12.07	Issue Type +	Ma	Location *		WS		
Earthen Levee				GPS Latitude/Longitude				
Category				Start		End		
Item	Vegetation			38.3165	43°	38.358110°		
item				-121.7400	85 °	-121.740381 °		
DWR ID	DWR_RD2098_04_s _ 2019_11							

Comment Code

V1 : Control annual grass and weeds on the levee slopes and easements.

Inspector Comment

Vegetation well managed in this area.

Photo 1 of 1 : SP_2019_RD2098_248_11_20190329_00027.jpg



View looking upstream at vegetation on the waterside slope (Spring 2019).

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

LM Start	9.44	Rating **	М	Issue No.		9	
LM End	9.74	Issue Type +	Ma	Location *	WS		
Category	Supplemental			GPS Latitude/Longitude			
Calegory			Start		End		
2017 USACE Erosion Survey,				38.320240 °		38.324587 °	
пеш	DRAFT			-121.740183 °		-121.740254°	
DWR ID	DWR_RD2098_04_f _ 2018_9						
Comment Code							

Inspector Comment

2017 Site ID: HAS 9.7 L

Status: Critical

2018: Some erosion about a third to half way up the slope the whole length. A couple pockets of deeper erosion into the slope. I would mark as unacceptable (Djulian).

2017 Field Notes: Upgraded to CRITICAL. Multiple slump on top of old slumping; slump is into levee prisim.

Site History: 2011 - Several scallops of erosion. Erosion primarily due to the weight of cattle on the slope. 2016 - Two new large scallop pockets in the middle of the site.

LM Start	9.44	Rating **	М	Issue No.	9 (cont)
LM End	9.74	Issue Type +	Ma	Location *	WS

Photo 1 of 3: SP_2019_RD2098_248_9_20190408_00031.jpg

View looking downslope at deep ruts in the waterside slope made by cows (Spring 2019).

Photo 2 of 3: SP_2019_RD2098_248_9_20190408_00032.jpg



View looking upstream at deep ruts in the waterside slope made by cows (Spring 2019).

Maintenance Issue Types Only, Levee Inspection Report By Mile - Spring 2019

Reclamation District No. 2098 Cache and Haas Slough

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 04 Back Levee	Left	2.95	03/26/2019 03/26/2019	David Julian

LM Start	9.44	Rating **	М	Issue No.	9 (cont)		
LM End	9.74	Issue Type +	Ma	Location *	WS		
Supplemental				GPS Latitude/Longitude			
Calegory				Start		End	
2017 USACE Erosion Survey,			38.320240 °		38.324587 °		
пеш	DRAFT DRAFT					-121.740254°	
DWR ID	DWR_RD2098_04_f _ 2018_9						
Comment Code							

Inspector Comment

2017 Site ID: HAS 9.7 L

Status: Critical

2018: Some erosion about a third to half way up the slope the whole length. A couple pockets of deeper erosion into the slope. I would mark as unacceptable (Djulian).

2017 Field Notes: Úpgraded to CRITICAL. Multiple slump on top of old slumping; slump is into levee prisim.

Site History: 2011 - Several scallops of erosion. Erosion primarily due to the weight of cattle on the slope. 2016 - Two new large scallop pockets in the middle of the site.



View looking downstream at worst section of the erosion on the waterside slope (Spring 2019).

10.02 Rating ** A/W Issue No. LM Start 17 Issue Type + Location * LS 10.02 LM End Earthen Levee GPS Latitude/Longitude Category End Start Slope Stability 38.328368° 38.328438 -121.740617° -121.740612 ° DWR ID DWR_RD2098_04_s _ 2017_17

Comment Code

S2 : Repair the levee slope damaged by foot traffic and prevent access where possible.

Inspector Comment

Sloughing landside slope has been temporarily repaired at this specific location, but this area shows cracks along shoulder and should continue to be monitored.

Photo 1 of 1: SP_2019_RD2098_248_17_20190311_00002.jpg



Slumping landside slope should be monitored and repaited as needed.